

"City of Champions"

DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER

Michael L. Thoreson
COMMISSIONER

January 15, 2007

I. Andrew Goldberg
Assistant Attorney General
Massachusetts Office of the Attorney General
One Ashburton Place - 18th Floor
Boston, MA 02108

Subject: Brockton, Massachusetts
Wastewater Collection/Treatment Facility
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
2006 - 4th Quarter Report

Dear Mr. Goldberg:

On behalf of the City of Brockton, we submit a quarterly report for your consideration regarding the City's Consent Decree Civil Action referenced above. This information is an update of the individual ongoing wastewater projects within the City plus other relevant data, in accordance with Section 42 of the Consent Decree.

Section 42 a - Activities Directed at Compliance with the Consent Decree:

1. Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing sewer rehabilitation based on the findings of the City Wide Sewer System Evaluation Survey (SSES). In addition, there are several private contractors performing sewer rehabilitation throughout the City. As a result of this work, many gallons of extraneous flow have been removed from the sewer system. The attached Table 1 is a summary of sewer system repairs documented since 1990. The City and private contractors repaired structural defects identified in the SSES, during the 4th quarter of 2006, which account for removal of 3,597 gpd of extraneous flow. This activity is required by Sections 35 through 39 of the Consent Decree.

2. Phase IV Sewer System Rehabilitation

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Construction commenced in October of 2006 and was halted in mid December 2006 due to winter scheduling. Construction is to resume around the beginning of April 2007. The construction value is approximately \$2,700,000 and SRF assistance is being provided. This activity is required by Sections 35 through 39 of the Consent Decree.

3. Phase V Sewer System Rehabilitation

The Phase V sewer system rehabilitation project is the accumulation of trenchless rehabilitation work not selected as bid alternates on previous projects. Construction of this project was completed during this quarter. This activity was required by Sections 35 through 39 of the Consent Decree.

4. Phase VI Sewer System Rehabilitation

Design of this project is underway, and is expected to be bid in the first quarter of 2007. Construction should be completed in 2008. The construction value is approximately \$2,400,000 and SRF assistance is being provided. This activity is required by Sections 35 through 39 of the Consent Decree.

5. Local and State Funding

The City is currently proceeding with the SRF funding package of \$61 million and a second loan offer of \$20 million has been provided by the State. In addition, the City recently modified their authorization for bonding from \$61 million to \$86 million. These funds are required for the upgrade of the wastewater treatment facility and for rehabilitation of the collection system.

6. I/I Reduction by Whitman and Abington

Both Whitman and Abington are required to develop an I/I rehabilitation plan as defined in the new NPDES permit for the Brockton WWTF. Both have been provided a copy of the Consent Decree. This activity is required by Section 40 of the Consent Decree.

7. Wastewater Treatment Facility Upgrade

- a. The Phase I WWTF Upgrade has reached substantial completion. This activity is required by Section 23, 24 and 25 of the Consent Decree.

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- b. The Phase II WWTF Upgrade continues as planned. This activity is required by Sections 26 through 29 of the Consent Decree.
 - c. The Phase III WWTF Upgrade continues as planned. This activity is required by Sections 30 through 34 of the Consent Decree.
8. Payment of Civil Penalty

During this quarter the City made payments via electronic funds transfer of \$60,000 to both DEP and EPA, in accordance with Sections 7 through 9 of the Consent Decree. Supporting documentation of the transfers is attached.

Section 42 b - Plans, Reports, and Deliverables Completed and Submitted during this Period (see attached documentation regarding each submittal):

- 1. The City issued a Certificate of Substantial Completion for the Phase I WWTF Upgrade.
- 2. The City completed and submitted a Draft I/I Removal Plan.
- 3. The City completed and submitted a Work Plan for the Lead Analysis SEP.
- 4. The City completed and submitted a Draft Regional Wastewater Management Plan including a draft Agreement between the City and Old Colony planning Council (OCPC).

Section 42 c - Activities Anticipated During the Next Reporting Period:

- 1. The City will submit a quarterly report.
- 2. Miscellaneous Sewer Pipe Repair and Replacement by City Personnel

Additional sewer rehabilitation by City staff based on the findings of the City Wide Sewer System Evaluation Survey (SSES) is expected to continue during the next reporting period.

- 3. Phase IV Sewer System Rehabilitation

Construction of this project is expected to continue in early April of 2007.

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4. Phase VI Sewer System Rehabilitation

Submittal of final contract documents and project bidding is expected during the next reporting period.

5. Wastewater Treatment Facility Upgrade

- a. No submittal requirements for the Phase II WWTF Upgrade during the next reporting period. This project continues on schedule.
- b. No submittal requirements for the Phase III WWTF Upgrade during the next reporting period. This project continues on schedule.

Section 42 d - Anticipated Non-Compliance During the Next Reporting Period:

With the treatment facility currently experiencing hydraulic limitations due to the construction upgrade (which required the entire South Secondary treatment system to be off-line), it is anticipated that the facility will incur periodic effluent excursions. Those excursions if any, are expected to be predominantly for effluent Ammonia Nitrogen limits. The South Secondary treatment system appears to be scheduled for a mid to late January completion and after testing it is scheduled to be put online in mid-February. After the South System is fully online and operating well we will begin to release tanks on the North System to the General Contractor for both Phase 2 and 3 upgrade work.

Section 42 e - Non-Compliance during the Current Reporting Period:

During the 4th quarter of 2006, the City of Brockton WWTF experienced violations mainly for the effluent parameter of NH₃-N. Some Daily TSS excursions occurred in October during some wet weather events. Most of these violations are attributable to the ongoing construction upgrade and limited available hydraulic capacity. The limited hydraulic capacities were due to the entire South Secondary treatment being fully inoperable during the construction of Phases I and II.

At this point, the testing and troubleshooting of the new North Blowers are mostly complete, and will resume following the Phase 3 replacement of the North Diffuser system.

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Section 73 - Certification by representative of the City

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Closing

We trust this information meets your expectations regarding the required progress report. Please do not hesitate to contact me at 508-580-7135 regarding any questions or comments on this information.

Sincerely,



Michael L. Thoreson
DPW Commissioner

cc: Chief, Environmental Enforcement Section, Environmental and Natural Resources Division
Barbara Healy Smith, Assistant U.S. Attorney
Tonia Bandrowicz, Sr. Enforcement Counsel, U.S. EPA
Steven Couto, Environmental Engineer, U.S. EPA
Anne Bingham, MDEP
John Condon, Chief Financial Officer
David Norton, Water and Sewer Contract Administrator
Larry Rowley, Utilities Superintendent
Joseph Shepherd, MADEP, SER
Jack Hamm, MADEP, Boston
Gregory A. Roy, CDM Cambridge
Ian W. Mead, CDM Providence

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		
				Inflow Removed	Total I/I per quarter	Exfiltration Source
4th Quarter 2006	December 18, 2006	Rutland St., replaced 3' of 6" pipe & service wye STA 2+48 (037-123 to 037-121A) see Photo 162A & 162B	672 gpd			
	December 12, 2006	Calvin Street, replaced service wye STA 0+85 (031-031 to 031-030) see Photo 161A & 161B	1,260 gpd			
	December 11, 2006	Calvin Street, replaced 6' of 8" PVC STA 0+31 (031-031 to 031-030) see Photo 160A & 160B	180 gpd			
	November 29, 2006	N. Manchester St., replaced 3' of 8" PVC & service wye STA 1+30 (042-004A to 042-004B) see Photo 159A & 159B	432 gpd			
	November 28, 2006	N. Manchester St., replaced 6' of 8" PVC & service wye STA 0+71 (042-004A to 042-004B) see Photo 158A	432 gpd			
	November 27, 2006	N. Manchester St., replaced 8' of 8" PVC & service wye STA 2+00 (042-004A to 042-004B) see Photo 157A & 157B	261 gpd			
	October 23, 2006	Vine Street, replaced 4' of 8" VC STA 1+46 (037-101 to 037-100) see Photo 156A & 156B	360 gpd		3,597 gpd	
3rd Quarter 2006	September 9, 2006	Keith Avenue, replaced 5' of 8" PVC STA 0+34 (024-039A to 024-039) see Photo 155A				
	May 9, 2006	Upland Road, replaced 3' of 8" PVC STA 0+87 (037-91 to 037-90) see Photos 154A & 154B	1,500 gpd			
	May 11, 2006	Rutland Avenue, replaced 8" pipe and service wye STA 2+33 (037-121A to 037-122) see Photos 153A & 153B	720 gpd			
	May 10, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 1+87 (037-121A to 037-122) see Photos 152A & 152B	720 gpd			
	May 18, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 2+74 (037-121A to 037-122) see Photo 151A	540 gpd			
	May 17, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 2+87 (037-121A to 037-122) see Photos 150A & 150B	540 gpd			
	May 16, 2006	Rutland Avenue, replaced 4' of 8" PVC STA 0+15 (037-121A to 037-122) see Photos 149A & 149B	540 gpd			
	July 19, 2006	Oak Street, replaced service connection STA 2+05 (037-136 to 037-135) see Photos 148A & 148B	2,400 gpd			
	July 20, 2006	Oak Street, replaced 8" pipe service wye STA 2+85 (037-136 to 037-135) see Photos 147A & 147B	1,200 gpd			
	July 25, 2006	Oak Street, replaced 8" pipe and two service tees PVC STA 1+72 (037-135 to 037-134) see Photos 146A & 146B	2,500 gpd			
	August 3, 2006	Oak Street, replaced 8" pipe and service tee STA 0+15 (037-134 to 037-133) see Photos 145A & 145B	1,200 gpd			
	August 7, 2006	Oak Street, replaced pipe and service wyes STA 0+42 (037-134 to 037-133) see Photos 144A & 144B	1,440 gpd			
	August 8, 2006	Oak Street, replaced 8" pipe and service wye STA 2+08 (037-133 to 037-132) see Photos 143A & 143B	720 gpd		14,020 gpd	
2nd Quarter 2006	May 1, 2006	Upland Rd., repl 2' of 8" pipe and 8"X8" sleeve STA 2+45 to 2+47 (037-091 to 037-090) see Photos 142A & 142B	320 gpd			
	April 25, 2006	Orchard Ave., replaced 6' of 8" pipe STA 0+83 to 0+87 (037-130 to 037-129) see Photos 141A & 141B	180 gpd		500 gpd	
	March 21, 2006	Pomona Dr., replaced 17.5' of 6" pipe and 6"X6" sleeve (045-032G to 045-032J) see Photos 140A & 140B				
	March 6, 2006	Main St. behind Shaws, 5' of 8" pipe STA 0+47 to 0+52 (034-12A to 034-012) see Photos 137A to 137B				
	February 28, 2006	Main St. behind Shaws, 5' of 8" pipe STA 0+21 to 0+26 (034-12A to 034-012) see Photos 136A & 136B				
	February 27, 2006	K-Mart Parking, replaced 6' of 8" pipe STA 0+36 to 0+42 (034-012K to 034-012J) see Photo 138A	1,440 gpd			
	February 7, 2006	E. Main St., replaced 5' of 8" pipe STA 2+70 to 2+74 (037-087 to 037-086) see Photos 133A & 133B				
	February 6, 2006	E. Main St., replaced 3' of 8" STA 2+25 to 2+28 (037-087 to 037-086) see Photos 132A & 132B				
	February 2, 2006	P5: Menlo Ave, lined 256.3' of 8" pipe (025-029 to 025-026)	15,750 gpd			
	February 1, 2006	P5: Geralyn Dr. Easement, lined 186' of 10" pipe (067-043 to 067-042)	1,275 gpd			
	February 1, 2006	P5: Easement across Cross Pond, lined 388' of 18" pipe (007-125 to 007-126)				
	January 31, 2006	P5: Boulders Apartments., lined 241' of 8" pipe (045-037E to 045-037D)	2,520 gpd			
	January 31, 2006	P5: Boulders Apartments., lined 150' of 8" pipe (045-037D to 045-037C)	1,440 gpd			
	January 31, 2006	P5: E. Ashland St., lined 153.5' of 15" pipe (045-033 to 045-032)	7,200 gpd			
	January 31, 2006	P5: E. Ashland St., lined 102.5' of 15" pipe (045-032 to 045-031)	2,880 gpd			
	January 30, 2006	P5: Toby Rd., lined 127.5' of 8" pipe (045-034B to 045-033A)	1,440 gpd			
	January 30, 2006	P5: Toby Rd., lined 16.2' of 8" pipe (045-034A to 045-034B)				
	January 30, 2006	P5: Toby Rd., lined 116.3' of 8" pipe (045-034C to 045-034A)				
	January 30, 2006	P5: Toby Rd., lined 192' of 8" pipe (045-036A to 045-035A)	2,160 gpd			
	January 30, 2006	P5: Toby Rd., lined 53' of 8" pipe (045-035A to 045-034C)	180 gpd			
	January 30, 2006	P5: Pleasant St., lined 399.5' of 10" pipe (017-065 to 017-062)	40,320 gpd			
	January 27, 2006	P5: Dover St., lined 451.6' of 10" pipe (018-017 to 018-016A)	6,099 gpd			
	January 27, 2006	P5: Belmont Ave, lined 77.3' of 10" pipe (017-011F to 017-041C)				
	January 26, 2006	P5: No. Warren Ave, lined 271.4' of 10" pipe (019-027 to 019-024)				
	January 26, 2006	P5: No. Warren Ave, lined 247.2' of 10" pipe (019-028 to 019-027)				
	January 26, 2006	P5: No. Warren Ave, lined 200.8' of 10" pipe (019-031 to 019-028)	360 gpd			
	January 26, 2006	P5: Warren Ave, lined 232.3' of 8" pipe (018-016 to 018-017A)	22,800 gpd			
	January 24, 2006	P5: Center St., lined 353.5' of 10" pipe (019-071 to 019-072)				
	January 24, 2006	P5: Center St., lined 145.5' of 10" pipe (019-065 to 019-071)	11,520 gpd			
	January 24, 2006	P5: Center St., lined 143' of 10" pipe (019-037B to 019-065)	720 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
1st Quarter 2006	January 24, 2006	P5: Forest Rd., lined 208' of 8" pipe (018-020A to 018-018B)	2,160 gpd			
	January 24, 2006	P5: Forest Rd., lined 325.6' of 8" pipe (018-018A to 018-018B)	12,960 gpd			
	January 20, 2006	P5: Edward St., lined 212.5' of 8" pipe (047-054 to 047-055)	720 gpd			
	January 20, 2006	P5: Sharon St., lined 150.3' of 8" pipe (047-054 to 047-053)	11,520 gpd			
	January 20, 2006	P5: Sharon St., lined 92.2' of 8" pipe (047-053 to 047-052)				
	January 20, 2006	P5: Sharon St., lined 111.5' of 8" pipe (047-051 to 047-052)	540 gpd			
	January 19, 2006	P5: Skinner St., lined 415.5' of 8" pipe (055-047 to 055-046)				
	January 19, 2006	P5: South Fuller St., lined 276' of 10" pipe (018-016B to 018-016A)	1,275 gpd			
	January 19, 2006	Oakside Ave., replaced 4' of 8" pipe STA 0+73 to 0+77 (033-024 to 033-024) see Photos 134A & 134B				
	January 18, 2006	P5: Lyon Ave, lined 279' of 8" pipe (066-053 to 066-052)	360 gpd			
	January 18, 2006	P5: Sharon St., lined 275.3' of 8" pipe (047-051 to 047-050)	4,320 gpd			
	January 18, 2006	P5: Sharon St., lined 300' of 8" pipe (047-050 to 047-049A)				
	January 18, 2006	P5: Sharon St., lined 200.3' of 8" pipe (047-049A to 047-049)	2,880 gpd			
	January 17, 2006	P5: Main St., lined 321.5' of 8" pipe (066-044 to 066-043)	135 gpd			
	January 17, 2006	P5: Annadea Rd., lined 302.5' of 8" pipe (047-006A to 047-005B)	2,880 gpd			
	January 17, 2006	P5: Annadea Rd., lined 115.5' of 8" pipe (047-005B to 047-004A)				
	January 16, 2006	P5: Skinner St., lined 148.3' of 8" pipe (055-048 to 055-049)	10,975 gpd			
	January 16, 2006	P5: Skinner St., lined 75.5' of 8" pipe (055-048 to 055-046)	410 gpd			
	January 13, 2006	P5: Maplewood Cir., lined 230.9' of 8" pipe (045-021 to 045-022)	1,440 gpd			
	January 13, 2006	P5: Maplewood Cir., lined 247.5' of 8" pipe (045-021 to 045-020)	2,880 gpd			
	January 13, 2006	P5: Joslyn Ln, lined 113.5' of 8" pipe (019-073 to 019-074)	90 gpd			
	January 13, 2006	P5: Joslyn Ln, lined 113.5' of 8" pipe (019-072 to 019-073)	90 gpd			
	January 12, 2006	P5: Cristo's Way, lined 370.9' of 8" pipe (048-051 to 048-050)	11,620 gpd			
	January 12, 2006	P5: Cristo's Way, lined 300.5' of 8" pipe (048-050 to 048-042)	764 gpd			
	January 12, 2006	P5: Woodland Ave, lined 391' of 8" pipe (035-107 to 035-106)	2,760 gpd			
	January 12, 2006	P5: Woodland Ave, lined 263' of 8" pipe (035-109 to 035-107)	69,120 gpd			
	January 12, 2006	Oakside Ave., replaced 5' of 8" pipe STA 1+45 to 1+50 (033-026 to 033-025) see Photos 135A & 135B				
	January 11, 2006	P5: Maplewood Cir., lined 276' of 8" pipe (045-020 to 045-019A)	1,440 gpd			
	January 11, 2006	P5: Maplewood Cir., lined 197' of 8" pipe (045-019 to 045-019A)	1,080 gpd			
	January 11, 2006	P5: Maplewood Cir., lined 201.5' of 8" pipe (045-017 to 045-019)	2,880 gpd			
	January 11, 2006	P5: Camden Ave, lined 198.5' of 8" pipe (020-060C to 020-060B)	12,960 gpd			
	January 11, 2006	P5: Camden Ave, lined 296.5' of 8" pipe (020-060B to 020-060A)	2,160 gpd			
	January 10, 2006	P5: Quincy St., lined 251' of 8" pipe (048-053 to 048-054)	410 gpd			
	January 10, 2006	P5: Beaumont Ave, lined 101' of 8" pipe (048-052 to 048-053)	107 gpd			
	January 10, 2006	P5: Beaumont Ave, lined 149' of 8" pipe (048-051 to 048-052)	107 gpd			
	January 10, 2006	P5: Hampton Ave, lined 417' of 8" pipe (035-108 to 035-107)	177 gpd			
	January 9, 2006	P5: Plain St., lined 286.7' of 8" pipe (066-090 to 066-089A)	5,000 gpd			
	January 4, 2006	Jane Ter., replaced 3' of 6" pipe STA 1+57 to 1+60 (033-022 to 033-021) see Photos 139A & 139B	1,440 gpd		285,764 gpd	
	Oct - Nov 2005	P5: Rehabilitation of 117 manholes	94,608 gpd			
	December 22, 2005	P5: Main Street, lined 277' of 8" pipe (066-042 to 066-041)				
	December 22, 2005	P5: Main Street, lined 248.5' of 8" pipe (066-043 to 066-042)	11,520 gpd			
	December 21, 2005	P5: Quincy Street, lined 273.7' of 8" pipe (048-056 to 048-055)	3,610 gpd			
	December 21, 2005	P5: Quincy Street, lined 279.2' of 8" pipe (048-055 to 048-053)	4,350 gpd			
	December 20, 2005	P5: Manomet Street, lined 277.45' of 8" pipe (020-053 to 020-054)	2,520 gpd			
	December 19, 2005	P5: Theresa Road, lined 232.1' of 8" pipe (067-065 to 067-066)	117 gpd			
	December 15, 2005	P5: Ash Street, lined 206.2' of 8" pipe (017-026 to 017-024)	1,620 gpd			
	December 15, 2005	P5: Ellsworth Street, lined 235.8' of 8" pipe (017-024 to 017-022)	4,320 gpd			
	December 14, 2005	P5: Spring Street, lined 210.6' of 8" pipe (017-043 to 017-053)	13,680 gpd			
	December 14, 2005	P5: Highland Terrace, lined 228.6' of 8" pipe (017-050 to 017-043)	7,560 gpd			
	December 13, 2005	P5: No. Quincy Street, lined 34' of 8" pipe (049-105 to 049-105A)	102 gpd			
	December 13, 2005	P5: No. Quincy Street, lined 314' of 8" pipe (049-106 to 049-105)	4,500 gpd			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
4th Quarter 2005	December 13, 2005	P5: No. Quincy Street, lined 285' of 8" pipe (049-108 to 049-106)	7,200 gpd			
	December 12, 2005	P5: Moraine Street, lined 335.05' of 8" pipe (017-066 to 017-065)	2,160 gpd			
	December 7, 2005	P5: Main Street, lined 327' of 8" pipe (066-045 to 066-044)	2,700 gpd			
	December 7, 2005	P5: Main Street, lined 304.7' of 8" pipe (066-049 to 066-045)				
	December 7, 2005	P5: Main Street, lined 203.4' of 8" pipe (066-052 to 066-049)	3,600 gpd			
	December 5, 2005	P5: Brunswick Street, lined 268.4' of 8" pipe (117-097 to 117-100)	1,440 gpd			
	December 1, 2005	P5: Summer Street, lined 139.65' of 8" pipe (066-083 to 066-079)	5,760 gpd			
	December 1, 2005	P5: Summer Street, lined 54.3' of 8" pipe (066-083 to 066-084)				
	December 1, 2005	P5: Summer Street, lined 174.45' of 8" pipe (066-084 to 066-085)	1,080 gpd			
	December 1, 2005	P5: Summer Street, lined 215.2' of 8" pipe (066-085 to 066-086)				
	November 30, 2005	P5: Pleasant Street, lined 152' of 8" pipe (017-162 to 017-160B)	1,080 gpd			
	November 30, 2005	P5: Pleasant Street, lined 308.3' of 8" pipe (017-160B to 017-160A)	8,460 gpd			
	November 30, 2005	P5: Pleasant Street, lined 307.7' of 8" pipe (017-160A to 017-160)				
	November 29, 2005	P5: Prospect Avenue, lined 308.05' of 8" pipe (017-114 to 017-113)	4,320 gpd			
	November 28, 2005	P5: Cross Country (off E. Ashland), lined 195.3' of 15" pipe (045-034 to 045-035)	1,382 gpd			
	November 28, 2005	P5: Cross Country (off E. Ashland), lined 207.4' of 15" pipe (045-033 to 045-034)	1,473 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 70.15' of 8" pipe (049-102 to 049-102A)	107 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 275.45' of 8" pipe (049-103 to 049-102)	4,380 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 287.2' of 8" pipe (049-104 to 049-103)	7,250 gpd			
	November 18, 2005	P5: No. Quincy Street, lined 326.1' of 8" pipe (049-105A to 049-104)	7,250 gpd			
	November 18, 2005	P5: E. Ashland Street, lined 21' of 12" pipe (040-015 to 040-016)	8,640 gpd			
	November 18, 2005	P5: E. Ashland Street, lined 152' of 12" pipe (040-003B to 040-015)	6,480 gpd			
	November 17, 2005	P5: Easement (between Manomet & Grafton), lined 129.3' of 8" pipe (020-048 to 020-043)	1,800 gpd			
	November 17, 2005	P5: Easement (between Manomet & Grafton), lined 250.7' of 8" pipe (020-049 to 020-048)	1,800 gpd			
	November 16, 2005	P5: No. Quincy Street, lined 295.8' of 8" pipe (045-072 to 045-074)				
	November 16, 2005	P5: No. Quincy Street, lined 301.6' of 8" pipe (045-075 to 045-074)				
	November 16, 2005	P5: No. Quincy Street, lined 239.6' of 8" pipe (045-075 to 045-076)				
	November 15, 2005	P5: Georgene Drive, lined 208.7' of 8" pipe (067-067A to 067-067)	764 gpd			
	November 15, 2005	P5: Georgene Drive, lined 210.35' of 8" pipe (067-069 to 067-067A)	8,095 gpd			
	November 14, 2005	P5: Clinton Street, lined 286.9' of 8" pipe (018-010A to 018-010)	5,760 gpd			
	November 10, 2005	P5: Cross Country, lined 161.45' of 12" pipe (045-017 to 045-016)	6,808 gpd			
	November 10, 2005	P5: Cross Country, lined 155.9' of 12" pipe (045-016 to 045-015)	6,643 gpd			
	November 10, 2005	P5: Cross Country, lined 245.1' of 12" pipe (045-015 to 045-014)	10,356 gpd			
	November 10, 2005	P5: Cross Country, lined 236.85' of 12" pipe (045-014 to 045-013)	10,068 gpd			
	November 10, 2005	P5: Cross Country, lined 224.9' of 12" pipe (045-013 to 045-012A)	9,325 gpd			
	November 10, 2005	P3: High Street, replaced 173.9' of 8" pipe (019-091 to 019-088A)	360 gpd			
	November 9, 2005	Hatchfield Dr, replaced 2' of 8" pipe STA 1+01 to 1+03 (032-055C to 032-055B) see Photo 131A & 131B	1,440 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 298.7' of 8" pipe (067-033 to 067-031)	6,873 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 297' of 8" pipe (067-034 to 067-033)	6,873 gpd			
	November 9, 2005	P5: Twelfth Avenue, lined 191.3' of 8" pipe (067-035 to 067-034)	3,254 gpd			
	November 8, 2005	P5: Carleton Street, lined 407.1' of 8" pipe (017-127 to 017-088)				
	November 7, 2005	P5: Plain Street, lined 349.1' of 8" pipe (067-065 to 067-067)	764 gpd			
	November 4, 2005	P5: August Avenue, lined 270.8' of 8" pipe (017-110 to 017-074)	2,160 gpd			
	November 2, 2005	P5: Hamilton Street, lined 273.7' of 8" pipe (117-097 to 117-099)	2,940 gpd			
	November 2, 2005	P5: Hamilton Street, lined 275.8' of 8" pipe (117-098 to 117-099)	1,440 gpd			
	November 2, 2005	P5: Boulders Apartments, lined 304.9' of 8" pipe (045-037E to 045-037G)	4,583 gpd			
	November 2, 2005	P5: No. Quincy Street, lined 292.4' of 8" pipe (049-109 to 049-108)	5,050 gpd			
	November 2, 2005	P5: No. Quincy Street, lined 337.1' of 8" pipe (049-109 to 049-110)				
	November 2, 2005	P5: Bedford Street, lined 347.65' of 8" pipe (045-047 to 045-048)				
	November 2, 2005	P5: Bedford Street, lined 158.8' of 8" pipe (045-047 to 045-046)				
	November 2, 2005	P5: Manomet Street, lined 149.85' of 8" pipe (020-061 to 020-060)	3,960 gpd			

Table 1
City of Brockton, Massachusetts
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History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
3rd Quarter 2005	November 2, 2005	P5: Manomet Street, lined 136.1' of 8" pipe (020-066 to 020-065)	180 gpd			
	November 2, 2005	P5: Manomet Street, lined 267.1' of 8" pipe (020-065 to 020-061)	315 gpd			
	November 2, 2005	P5: Anania Terrace, lined 388.4' of 8" pipe (020-067 to 020-065)	14,400 gpd			
	November 2, 2005	P5: Loucraft Avenue, lined 310.4' of 8" pipe (019-043 to 019-042)				
	November 2, 2005	P5: Maplewood Cir., lined 242.8' of 10" pipe (045-031A to 045-033B)	21,600 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 152.1' of 10" pipe (045-031A to 045-030A)	4,320 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 90' of 10" pipe (045-029A to 045-030A)	1,440 gpd			
	November 2, 2005	P5: Maplewood Cir., lined 308.3' of 10" pipe (045-029A to 045-028)	5,040 gpd			
	October 19, 2005	P5: Pomona Drive, lined 279.5' of pipe (045-032A to 045-032B)				
	October 19, 2005	P5: Pomona Drive, lined 105.4' of pipe (045-032A to 045-032G)	2,800 gpd			
	October 19, 2005	P5: Pomona Drive, lined 213.5' of pipe (045-032H to 045-032G)	360 gpd			
	October 19, 2005	P5: Pomona Drive, lined 118.6' of pipe (045-032H to 045-032I)	720 gpd			
	October 19, 2005	P5: Pomona Drive, lined 47.3' of pipe (045-032C to 045-032B)				
	October 19, 2005	P5: Oberline Road, lined 319.6' of pipe (045-032B to 045-032D)				
	October 19, 2005	P5: Annadea Road, lined 297.9' of 8" pipe (047-007A to 047-006A)	3,600 gpd			
	October 19, 2005	P5: Annadea Road, lined 227.9' of 8" pipe (047-007A to 047-008A)	1,080 gpd			
	October 19, 2005	P5: Annadea Road, lined 221.3' of 8" pipe (047-009A to 047-008A)	1,448 gpd			
	October 19, 2005	P5: Court Street, lined 422.65' of 8" pipe (047-061 to 047-063)	4,320 gpd			
	October 19, 2005	P5: Court Street, lined 245.3' of 8" pipe (047-061 to 047-020)	1,080 gpd			
	October 17, 2005	P5: Charline Drive, lined 57.15' of 8" pipe (047-062 to 047-062A)				
	October 17, 2005	P5: Charline Drive, lined 336.6' of 8" pipe (047-061 to 047-062)	2,700 gpd			
	October 13, 2005	P5: Pomona Drive, lined 243.3' of pipe (045-032 to 045-032A)	3,600 gpd			
	October 12, 2005	P5: Bark Circle, lined 238' of 8" pipe (045-083 to 045-084)				
	October 12, 2005	P5: Bark Circle, lined 205.4' of 8" pipe (045-083 to 045-082)				
	October 11, 2005	P3: Lincoln Street, replaced 205.2' of 10" pipe (019-103A to 019-103B)	2,160 gpd			
	October 11, 2005	P3: Lincoln Street, replaced 126.3' of 10" pipe (019-103B to 019-103C)				
	October 11, 2005	P3: Lincoln Street, replaced 59.9' of 10" pipe (019-103C to 019-103D)				
	October 11, 2005	P3: Lincoln Street, replaced 94.1' of 10" pipe (019-103D to 019-103E)				
	October 11, 2005	P3: Lincoln Street, replaced 134.1' of 10" pipe (019-103E to 019-103F)				
	October 11, 2005	P3: School St, replaced 294' of 10" pipe (019-088 to 019-103B)	720 gpd		396,268 gpd	
	Sept. 27 - 28, 2005	P5: Rehabilitation of 7 manholes	5,760 gpd			
	September 23, 2005	Van Cliff, replaced 8" pipe STA 3+00 to 3+05 (032-053 to 032-052) see Photos 127A & 127B				
	September 21, 2005	Marie Ave., replaced 8" pipe STA 2+70 to 2+89 (050-065 to 050-065B) see Photos 129A & 129B	2,880 gpd			
	September 21, 2005	Marie Ave., replaced 6' of 8" pipe STA 2+20 to 2+26 (050-066 to 050-067) see Photo 130A & 130B	1,440 gpd			
	September 20, 2005	Budd Ave., replaced 8" pipe STA 1+50 to 1+55 (053-062 to 053-063) see Photos 128A & 128B	7,200 gpd			
	September 16, 2005	P3: Green St., replaced 275' of 6" pipe (019-025 to 019-024)	1,440 gpd			
	September 12, 2005	Van Cliff, replaced 8" pipe STA 1+65 to 1+69 (032-053 to 032-052) see Photos 126A & 126B				
	September 6, 2005	P3: N. Warren Ave., replaced 365' of 8" pipe (019-042 to 019-040)				
	September 6, 2005	P3: N. Warren Ave., replaced 157' of 8" pipe (019-044 to 019-042)	6,840 gpd			
	August 31, 2005	P2: Bartlett St., replaced 19.5' of 30" pipe (018-051B to 018-051)				
	August 31, 2005	P2: Chester Ave., replaced 18' of 18" pipe (018-051A to 018-051)				
	August 31, 2005	P2: Chester Ave., replaced 19.5' of 18" pipe (018-051B to 018-056)				
	August 31, 2005	P2: Chester Ave., replaced 89.5' of 18" pipe (018-056 to 018-056B)				
	August 25, 2005	West St., replaced 4' of 10" sewer pipe STA 1+29 to 1+33 (014-077 to 014-078)	1,440 gpd			
	August 23, 2005	P3: Roan Crt., replaced 286' of 8" pipe (019-041 to 019-040)				
	August 19, 2005	Roan Court, removed water & sewer service cross connection @ abandoned lot (019-040 to 019-041)	21,600 gpd			
	August 11, 2005	Rockland St., replaced service wye at STA 1+70 (031-088 to 031-093) see Photos 122A & 122B				
	August 10, 2005	Rockland St., replaced wye & pipe STA 0+84 - 0+89 (031-087 to 031-086) see Photos 123A & 123B				
	August 10, 2005	Windsor Cir., replaced 8" pipe STA 1+55 to 1+60 (031-090 to 031-089) see Photos 124A & 124B	5,760 gpd			
	August 8, 2005	Rockland St., replaced 8" pipe STA 0+00 to 1+05 (031-088 to 031-093) see Photos 121A & 121B				

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Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
2nd Quarter 2005	August 8, 2005	Chester Ave., replaced sewer manhole with underdrain connection (018-056) see Photos 119A	14,400 gpd			
	August 5, 2005	Adams St., replaced 8' of 8" pipe (053-097 to 053-096) see Photo 120A and 120B	7,200 gpd			
	August 5, 2005	P3: Plain St., replaced 265' of 12" pipe (066-080 to 066-079)				
	August 5, 2005	P3: Plain St., replaced 229' of 12" pipe (066-080 to 066-081)				
	August 5, 2005	P3: Plain St., replaced 254' of 12" pipe (066-081 to 066-082)				
	July 19, 2005	Calvin St., replaced service wye at STA 0+30 (031-031 to 031-030) see Photos 125A & 125B	2,880 gpd		78,840 gpd	
	June 17, 2005	P3: Otis St., replaced 223' of 8" pipe (055-043 to 055-042B)	410 gpd			
	May 30, 2005	Forest Ave., replaced pipe (021-032 to 021-031) see Photos 116A & 116B				
	May 17, 2005	Carrol Ave., replaced service wye STA 1+06 (025-021B to 025-021A) see Photos 115A & 115B	720 gpd			
	May 16, 2005	P3: Appleby St., replaced 283' of 10" pipe (067-015 to 067-028)	760 gpd			
	May 12, 2005	P3: Armistion St., replaced 334' of 10" pipe (045-060 to 045-059)	8,640 gpd			
	May 12, 2005	P3: Armistion St., replaced 336' of 10" pipe (045-061 to 045-060)	4,320 gpd			
	May 11, 2005	P3: Twelfth Ave., replaced 300' of 8" pipe (067-031 to 067-028)	570 gpd			
	May 11, 2005	Carrol Ave., replaced service wye STA 0+59 (025-021B to 025-021A) see Photos 118A & 118B	1,440 gpd			
	May 10, 2005	Carrol Ave., replaced pipe STA 1+42 to 1+47 (025-021A to 025-021C) see Photos 117A & 117B				
	May 6, 2005	P3: Twelfth Ave., replaced 225' of 10" pipe (067-028 to 067-027)	8,990 gpd			
	April 28, 2005	P3: Armistion St., replaced 300' of 8" pipe (045-062 to 045-061)				
	April 28, 2005	P3: Armistion St., replaced 238' of 8" pipe (045-063 to 045-062)	720 gpd			
	April 15, 2005	P3: Pratt St., replaced 207' of 10" pipe (045-064 to 045-065)	36,000 gpd			
	April 12, 2005	P3: Armistion St., replaced 340' of 10" pipe (045-058 to 045-059)	8,640 gpd			
1st Quarter 2005	April 12, 2005	P3: Allerton St., replaced 269' of 10" pipe (045-064 to 045-061)	30,240 gpd		101,450 gpd	
	March 26, 2005	Woodard Ave, replaced 4' of 12" pipe from STA 2+21 to 2+25 (025-103 to 025-102)	1,440 gpd			
	March 18, 2005	Woodard Ave, replaced service wye STA 0+87 (025-03 to 025-02) see Photos 114A & 114B	1,440 gpd			
	February 16, 2005	Vesey St., replaced pipe from STA 0+89 to 0+97 (023-028 to 023-027) see Photos 113A & 113B				
	February 14, 2005	Vesey St., replaced service wye at STA 2+11 (023-029 to 023-028) see Photos 112A & 112B				
	January 14, 2005	P3: Otis St., replaced 223' of 8" pipe (055-043 to 055-042B)	410 gpd			
	January 11, 2005	Hillberg Ave., replaced pipe from STA 0+35 to 0+51 (023-042 to 023-041) see Photos 111A & 111B	1,440 gpd			
	January 11, 2005	Hillberg Ave., replaced pipe from STA 0+78 to 0+94 (023-040A to 023-040) see Photos 107A & 107B	438 gpd		5,168 gpd	
4th Quarter 2004	December 21, 2004	Hillberg Ave., replaced pipe from STA 0+97 to 1+01 (023-044 to 023-043) see Photos 108A & 108B	1,440 gpd			
	December 14, 2004	P2: Silver Rd., replaced 685' of 10" pipe (017-059 to 017-061)	15,840 gpd			
	December 14, 2004	Tremont St., replaced wye & pipe from STA 2+30 to 2+36 (023-016 to 023-014) see Photos 109A & 109B	1,440 gpd			
	Dec. 13-30, 2004	Whitman Interceptor lining, Southfield Dr., East St. to Edison Easement (1,570 ft)	20,000 gpd			
	December 13, 2004	French Ave., replaced pipe from STA 1+13 to 1+25 (023-027 to 023-025) see Photos 110A & 110B	2,160 gpd			
	December 3, 2004	P3: Annadea Rd., replaced 253' of 8" pipe (047-003A to 047-002A)	2,160 gpd			
	December 3, 2004	P3: Edward St., replaced 295' of 8" pipe (047-042 to 047-043)	8,640 gpd			
	December 3, 2004	P3: Edward St., replaced 207' of 8" pipe (047-042 to 047-041)	2,160 gpd			
	December 3, 2004	P3: Crane Rd., replaced 301' of 8" pipe (047-15A to 047-14A)	2,160 gpd			
	December 3, 2004	P3: Crane Rd., replaced 297' of 8" pipe (047-016A to 047-015A)	4,140 gpd			
	December 3, 2004	P3: Crane Rd., replaced 197' of 8" pipe (047-017A to 047-016A)	360 gpd			
	December 3, 2004	P2: Edward St., replaced 537' of 8" pipe (047-041 to 047-043)	10,800 gpd			
	December 3, 2004	P2: Crane rd., replaced 804' of 8" pipe (047-014A to 047-017A)	6,660 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 225' of 8" pipe (047-009A to 047-010B)	4,320 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 300' of 8" pipe (047-011A to 047-009A)	17,285 gpd			
	December 2, 2004	P3: Twin Oaks, replaced 250' of 8" pipe (047-011A to 047-012A)	5,760 gpd			
	December 2, 2004	P2: Twin Oaks Dr., replaced 769' of 8" pipe (047-009A to 012A and 010B)	27,365 gpd			
	December 2, 2004	French Ave., replaced pipe from STA 0+45 to 0+47 (023-027 to 023-025) see Photos 105A & 105B	1,440 gpd			

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Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
3rd Quarter 2004	November 29, 2004	P2: Belmont Ave., replaced 89' of 8" and 10" pipe (017-011F to 017-011F1)				
	November 22, 2004	P2: Augusta Ave., replaced 763' of 8" and 6" pipe (017-110 to 017-115)	3,060 gpd			
	November 16, 2004	P2: Greenfield St., replaced 456' of 8" and 6" pipe (017-110 to 017-111)	360 gpd			
	November 8, 2004	P2: Spring St., replaced 292' of 8" pipe (017-036 to 017-037)	7,020 gpd			
	November 2, 2004	French Ave., replaced pipe from STA 0+16 to 0+18 (023-027 to 023-025) see Photos 106A & 106B	4,102 gpd			
	November 2, 2004	P2: Poplar Rd., replaced 654' of 8" pipe (017-053 to 017-CAP6)	13,680 gpd			
	October 26, 2004	P2: Brook St. replaced 1,097' of 8" and 10" pipe (018-012A to 018-030)	5,220 gpd			
	October 25, 2004	P2: Green St., replaced 508' of 8" and 10" pipe (017-034 to 017-035)	11,430 gpd			
	October 14, 2004	Myrtle St, replaced pipe STA 0+14 to 0+18 (022-036 to 022-035) see Photos 94A	4,320 gpd			
	October 12, 2004	P2: Newbury St., replaced 528' of 8" and 6" pipe (017-128 to 017-131)	7,200 gpd			
	October 4, 2004	School St, replaced pipe from STA 0+05 to 0+9 (019-103B to 019-103A) see Photos 95A & 95B	2,160 gpd		192,682 gpd	
	September 30, 2004	Lincoln St, capped service STA 2+03 (019-103A to 019-103) see Photos 97A & 97B				
	September 30, 2004	Lincoln St, replaced pipe from STA 0+80 to 0+85 (019-103A to 019-103) see Photos 96A & 96B	1,440 gpd			
	September 30, 2004	P2: Ash St., replaced 299' of 8" pipe (017-038 to 017-039)	360 gpd			
	September 24, 2004	Center St, replaced pipe STA 0+82 to 0+94 (019-65 to 019-37B) see Photos 99A & 99B	650 gpd			
	September 24, 2004	Center St, replaced service wye STA 1+08 (019-73 to 019-74) see Photos 98A	1,440 gpd			
	September 22, 2004		4,320 gpd			
		P2: Boylston St. replaced 561' of 8" pipe (020-054 to 020-056)				
	September 20, 2004	High St, replaced pipe from STA 1+15 to 1+21 (019-091 to 019-088A) see Photos 100A & 100B	1,440 gpd			
	September 15, 2004					
		P2: Camden Ave., replaced 292' of 8" pipe (020-060 to 020-060A)				
	September 14, 2004		4,320 gpd			
		Legion PKW, replaced pipe from STA 0+46 to 0+64 (019-076 to 019-090) see Photos 101A & 101B				
	September 8, 2004		1,440 gpd			
		Legion PKW, replaced pipe from STA 0+96 to 0+98 (019-079 to 019-076) see Photos 102A & 102B				
	September 8, 2004		720 gpd			
		P2: Forest Rd. replaced 218' of 8" pipe (018-20A to 018-021A)				
	September 7, 2004	Center St, replaced service wye STA 0+19 (019-73 to 019-72) see Photos 103A & 103B				
	September 2, 2004	Packard WY, replaced pipe STA 3+01 to 3+10 (021-004 to 021-003) see Photos 104A	2,880 gpd		19,010 gpd	
2nd Quarter 2004					0 gpd	
1st Quarter 2004					0 gpd	
4th Quarter 2003	Sept 26 - Dec 31, 2003	Abington removal of 8 sump pumps		172,800	172,800 gpd	
	July 2003	P1: 002-079 MH rehab	2,880 gpd			
	July 2003	P1: 002-081 MH rehab	2,880 gpd			
	July 2003	P1: 002-098 MH rehab	4,320 gpd			
	July 2003	P1: 002-201 MH rehab	2,880 gpd			
	July 2003	P1: 002-200A MH rehab	2,880 gpd			
	August 2003	P1: 004-006 MH rehab	5,760 gpd			
	July 2003	P1: 009-017A MH rehab	7,200 gpd			
	July 2003	P1: 011-001 MH rehab	5,760 gpd			
	July 2003	P1: 011-002 MH rehab	4,320 gpd			
	July 2003	P1: 011-018 MH rehab	2,880 gpd			
	August 2003	P1: 012-067 MH rehab	2,160 gpd			
	July 2003	P1: 012-076 MH rehab	2,880 gpd			
	July 2003	P1: 017-125 MH rehab	4,320 gpd			

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Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day			Exfiltration Source
				Inflow Removed	Total I/I per quarter		
3rd Quarter 2003	August 2003	P1: 017-054 MH rehab	7,200 gpd				
	July 2003	P1: 021-001 MH rehab	28,800 gpd				
	August 2003	P1: 025-041A MH rehab	4,320 gpd				
	July 2003	P1: 027-068 MH rehab	2,160 gpd				
	July 2003	P1: 031-016 MH rehab	2,880 gpd				
	July 2003	P1: 031-089 MH rehab	7,200 gpd				
	July 2003	P1: 031-050A MH rehab	7,200 gpd				
	July 2003	P1: 032-019 MH rehab	4,320 gpd				
	August 2003	P1: 033-021 MH rehab	2,880 gpd				
	August 2003	P1: 041-079 MH rehab	7,200 gpd				
	July 2003	P1: 045-033 MH rehab	7,200 gpd				
	August 2003	P1: 045-065 MH rehab	7,200 gpd				
	July 2003	P1: 046-113A MH rehab	2,160 gpd				
	July 2003	P1: 047-029 MH rehab	4,320 gpd				
	July 2003	P1: 048-057D MH rehab	3,600 gpd				
	July 2003	P1: 049-091 MH rehab	2,160 gpd				
	August 2003	P1: 052-010 MH rehab	3,600 gpd				
	July 2003	P1: 061-011 MH rehab	5,040 gpd				
	July 2003	P1: 065-021 MH rehab	7,200 gpd				
	July 2003	P1: 065-028 MH rehab	31,680 gpd				
	August 2003	P1: 065-008A MH rehab	2,160 gpd				
	August 2003	P1: 117-088A MH rehab	4,320 gpd				
	August 2003	P1: Pleasant Street 008-011 to 008-010 61' 8"	5,900 gpd				
	August 2003	P1: Rockland Street 008-013 to 008-012 306' 8"	25,000 gpd				
	July 2003	P1: Belair Street 004-040 to 004-023 116' 10"	3,600 gpd				
	July 2003	P1: Belair Street 004-023 to 004-020, 248' 10"	15,120 gpd				
	July 2003	P1: Belair Street 004-020 to 004-016, 298' 10"	16,560 gpd				
	July - Sept. 2003	Abington removal of 21 sump pumps		440,000 gpd	712,100 gpd		
2nd Quarter 2003	May 2003	P1: Belair Street 004-045 to 004-044 361' 8"	0 gpd				
	May 2003	P1: Belair Street 004-044 to 004-042 115' 8"	0 gpd				
	April 2003	P1: Belair Street 004-042 to 004-041 243' 8"	1,275 gpd				
	April 2003	P1: Belair Street 004-041 to 004-040 364' 8"	2,880 gpd				
	June 2003	P1: North Cary Steet 040-031 to 040-029 164' 12"	11,520 gpd				
	June 2003	P1: North Cary Steet 040-029 to 040-028 338' 12"	112,320 gpd				
	April 8, 2003	P1: Belair Street 004-016 to 017-012A, 357' 10"	14,400 gpd		142,395 gpd		
1st Quarter 2003	March 20, 2003	P1: Belair Street 017-012A to 017-011A 55' 10"	0 gpd				
	March 10, 2003	P1: Westgate Drive 007-127F to 007-127Q 196' 12"	34,560 gpd				
	February 26, 2003	P1: Easement off E. Westgate Dr. 007-127D to 007-127C 326' 12"	30,560 gpd				
	February 15, 2003	P1: Easement off E. Westgate Dr. 007-127C to 007-127B 251' 12"	57,500 gpd				
	February 10, 2003	P1: Easement off E. Westgate Dr. 007-127B to 007-127 335' 12"	410 gpd		123,030 gpd		
4th Quarter 2002	December-02	P1: Belair Street 017-011A to 017-010B 174' 10"	26,640 gpd				
	December-02	P1: Belair Street 017-010B to 017-011B 98' 10"	11,520 gpd				
	November-02	P1: Belair Street 017-011B to 017-010A 111' 10"	0 gpd				
	November-02	P1: Belair Street 017-010A to 017-009A, 280' 10"	2,160 gpd				
	November-02	P1: Belair Street 017-009A to 017-001B 209' 10"	0 gpd				
	Oct - Dec 2002	Removal of 138 private sump pumps throughout the city		3,008,000 gpd			
	October 3, 2002	Legion PKW, disconnected private catch basin, STA 0+48 (019-077 to 019-076) see Photo 93A & 93B		107,000 gpd	3,155,320 gpd		
	August 20, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)	100,000 gpd				

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Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
3rd Quarter 2002	July 30, 2002	Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B	4,320 gpd			
	July 29, 2002	S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B	SPL			
	July 27, 2002	Dover St., replaced service wye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	360 gpd			
	July 25, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A	1,440 gpd			
	July 24, 2002	Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B	SPL			
2nd Quarter 2002	July 23, 2002	Dover St., removed service wye at STA 2+18 (018-018B to 018-019C) see Photo 89A & 89B	SPL		106,120 gpd	
	May 28, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B	SPL			
	May 21, 2002	Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B	4,320 gpd			
	May 20, 2002	Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B	2,880 gpd			
	May 17, 2002	Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	720 gpd			
	May 13, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B	1,440 gpd			
	May 9, 2002	Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B	SPL			
	May 8, 2002	Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B	4,320 gpd			
	May 8, 2002	Hancock Av., replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	720 gpd			
	May 7, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B	SPL			
	May 7, 2002	Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B	SPL			
	May 6, 2002	Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B	720 gpd			
	May 2, 2002	Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B	2,880 gpd			
	May 1, 2002	Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	720 gpd		18,720 gpd	
1st Quarter 2002	March 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B	200 gpd			
	March 21, 2002	Hancock Ave., replaced service wye at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B	1,440 gpd			
	March 11, 2002	Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B	2,880 gpd			
	March 6, 2002	Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B	1,440 gpd			
	March 5, 2002	Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B	100 gpd			
	March 4, 2002	Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B	1,440 gpd			
	February 28, 2002	Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	SPL			
	February 26, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B	1,000 gpd			
	February 25, 2002	N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B	600 gpd			
	February 21, 2002	Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B	200 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B	360 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B	100 gpd			
4th Quarter 2001	January 10, 2002	E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-127I to 007-127G) see Photo 66A & 66B	1,440 gpd		11,000 gpd	
	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL			
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd			
	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL			
	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL			
	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL			
3rd Quarter 2001	October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL		1,440 gpd	
	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL			
	August 20, 2001	Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720			
	August 16, 2001	Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720			
	August 14, 2001	Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440			
	August 13, 2001	Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640			
2nd Quarter 2001	August 7, 2001	Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-104 to 005-136) see Photo 50A & 50B	SPL			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
2nd Quarter 2001	August 3, 2001	Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL		11,520 gpd	
	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd			
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd			
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL			
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL			
	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL			
	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye see Photo 46A & 46B	100,000 gpd			
	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43	-			X
	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL			
	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL			
	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping			
	April 20, 2001	Benham St., replaced pipe from STA to () see Photo 38A & 38B	???			
	April 19, 2001	Miller Ave., Replaced pipe from STA to () see Photo 39A & 39B	???			
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL			
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL			
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL			
	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd		108,640 gpd	
1st Quarter 2001	March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL			
	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL			
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL			
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd			
	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL			
	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd			
	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd			
	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd			
	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039) see Photo 28A & 28B	4,320 gpd			
	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd			
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL			
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL			
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL			
	January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd		38,160 gpd	
4th Quarter 2000	Nov. 30, 20000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd			
	Nov. 28, 20000	West Haven Dr., replaced 7' of 8 "pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *			
	Nov. 16, 20000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo 15A & 15B	2,880 gpd			
	Nov. 14, 20000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL			
	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL			
	October 23, 2000	Darren Dr., replaced 3 ' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL			
	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL			
	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL			
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 (063-009B to 063-005) see Photo 14A & 14B	SPL			
	Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL		3,647 gpd	
1st Quarter 2000	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL			
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd			
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL			
	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL			
	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd			
	July 26, 2000	Burril St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd			
	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL			

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day			Exfiltration Source
				Inflow Removed	Total I/I per quarter		
3rd Quarter 2000	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL				
	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd				
	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd				
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd				
	July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd				
	July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd		38,340 gpd		
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd				
	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *				
	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd				
	?	Embassy Nursing Home had direct sewer connection to surface water			47,370 gpd		X
1st Quarter 2000							
					0 gpd		
4th Quarter 1999	December 1999	Howard Street Sewer Replacement, 4,460 ft	29,882 gpd *				
	?	Snell Place Sewer Replacement of 15 ft	101 gpd *				
					29,983 gpd		
3rd Quarter 1999	July 1999	Country Club Lane Sewer Replacement of 400 ft	2,680 gpd *				
	July 1999	Country Club Place Sewer Replacement of 400 ft	2,680 gpd *				
					5,360 gpd		
2nd Quarter 1999	April 5, 1999	Bellaire St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *				
					67 gpd		
1st Quarter 1999	March 29, 1999	Bellaire St. MH 004-016 to 004-015 replaced 6' of 10" pipe & 1 service between STA 1+37 & 1+41	40 gpd *				
	March 22, 1999	Bellaire St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd *				
					80 gpd		
4th Quarter 1998	September 1998	Warren & Keith, 60 ft west (Holmgren project)	402 gpd *				
	September 1998	Warren & W. Chestnut, 74 ft west (Holmgren project)	496 gpd *				
	September 1998	Warren & Calmar, 74 ft east (Holmgren project)	496 gpd *				
	September 1998	Warren & Market to Copeland, 1,135 ft (Holmgren project)	7,605 gpd *		8,999 gpd		
1st, 2nd, 3rd Quarter 1998	1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118)	3,497 gpd *				
	January 1998	Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	41,200 gpd *				
					44,697 gpd		
4th Quarter 1997	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *				
					20,100 gpd		
3rd Quarter 1997	August 1, 1997	137 Perkins Ave, broken sewer leaking into a broken drain below					X
	?	Sewer overflow disconnected at siphon on Bartlett St.					X
	?	Sewer overflow disconnected on the East Side Interceptor					X
	August 1, 1997	Matfield Woods Estates, possible infiltration from a force main crossing of a brook			0 gpd		X
1st & 2nd Quarter 1997	April 1997	Sawtell Ave. Sewer Replacement of 300 ft with 8" PVC (between Glendale St. and Alden St.)	2,010 gpd *				
	March 1997	Wilmington St. Sewer Replacement of 100 ft with 15" PVC	670 gpd *				
	January 27, 1997	150 Lisa Drive Replaced 8 ft of sewer with 8" PVC	54 gpd *				

Table 1
City of Brockton, Massachusetts
Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day			Exfiltration Source
				Inflow Removed	Total I/I per quarter		
1st Quarter 1996		Market Street Sewer Replacement			2,734 gpd		
4th Quarter 1996	October 1996	Oak Green Apartments off Reservoir Street, disconnected a sewer MH from draining a surface water	900,000 gpd				
	October 1996	Biscayne Street Disconnected this abandoned private street from the city sewer because of several defects and constant I/I.	570,000 gpd		1,470,000 gpd		
3rd Quarter 1996	August 1996	Howard Street Bridge Reconstruction, replaced 150 ft under bridge with 12" DI	1,005 gpd *				
	August 1996	Terminal Place on Evans St., replaced 300 ft of sewer with 8"PVC	2,010 gpd *				
2nd Quarter 1996					3,015 gpd		
	May 1996	- Replaced 50 ft from Warren Ave. going west with 8" PVC	335 gpd *				
	May 1996	- Replaced 250 ft from intersection of Copeland with 12" DI	1,675 gpd *				
	May 1996	- Replaced 240 ft from Warren Ave. going east with 24" PVC	1,608 gpd *		3,618 gpd		
1st Quarter 1996	March 22, 1996	Augusta Ave. replaced 6 ft with 8" PVC	40 gpd *				
	February 29, 1996	Ash St. and Pleasant St. replaced 25 ft with 8" PVC	168 gpd *				
4th Quarter 1995					208 gpd		
	Dec. 27, 1995	68 Belair St. replaced 18 ft with 10" PVC	121 gpd *				
					121 gpd		
	Jan.-May 1995	Howard Street Interceptor Project - Replaced 838 ft on Intervale St. with 21" PVC - Replaced 244 ft on Dyer St. with 21" PVC - Replaced 1,511 ft on Winter St., Douglas St., and Oscar Ave. with 18" PVC	5,615 gpd * 1,635 gpd *				
	May 6, 1995	Rainville St. replaced 6 ft with 15" PVC	10,124 gpd *				
	April 1995	Sump pump removed at 55 Albert St.	40 gpd *				
	April 1995	Sump pump removed at 115/117 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 234 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 266 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 60 Arthur St.	8,640 gpd **				
	April 1995	Sump pump removed at 122 Arthur St.	8,640 gpd **				
	April 1995	Sump pump removed at 21 Baltic Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 70 Baltic Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 185 Baltic Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 155 Alden St.	8,640 gpd **				
	April 1995	Sump pump removed at 116 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 260 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 292 Ames St.	8,640 gpd **				
	April 1995	Sump pump removed at 105 Arthur St.	8,640 gpd **				
	April 1995	Sump pump removed at 136 Arthur St.	8,640 gpd **				
	April 1995	Sump pump removed at 40 Baltic Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 77 Baltic Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 38 Banks St.	8,640 gpd **				
	April 1995	Sump pump removed at 65 Lawton Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 35 Louis St.	8,640 gpd **				
	April 1995	Sump pump removed at 22 Merton St.	8,640 gpd **				
	April 1995	Sump pump removed at 58 Merton St.	8,640 gpd **				
	April 1995	Sump pump removed at 96 Merton St.	8,640 gpd **				
	April 1995	Sump pump removed at 116 North Ave.	8,640 gpd **				

Table 1
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Consent Decree, Civil Action Case No. 1:06-cv-11334-NMG
Response to Section 42a - Activities Directed at Compliance with the Consent Decree
History of Sewer System Repair and Rehabilitation

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day			Exfiltration Source
				Inflow Removed	Total I/I per quarter		
	April 1995	Sump pump removed at 154 North Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 37 Saint Casimir St.	8,640 gpd **				
	April 1995	Sump pump removed at 30 Louis St.	8,640 gpd **				
	April 1995	Sump pump removed at 29 Merton St.	8,640 gpd **				
	April 1995	Sump pump removed at 68 Merton St.	8,640 gpd **				
	April 1995	Sump pump removed at 112 North Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 122 North Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 165 Ridge St.	8,640 gpd **				
	April 1995	Sump pump removed at 24 Vermont Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 64 Banks St.	8,640 gpd **				
	April 1995	Sump pump removed at 11 Bellevue Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 124 Bellevue Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 43 Claremont St.	8,640 gpd **				
	April 1995	Sump pump removed at 107 Hovendon Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 115 Hovendon Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 164 Hovendon Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 247 Howard St.	8,640 gpd **				
	April 1995	Sump pump removed at 10 Intervale St.	8,640 gpd **				
	April 1995	Sump pump removed at 19 Westford St.	8,640 gpd **				
	April 1995	Sump pump removed at 91 Banks St.	8,640 gpd **				
	April 1995	Sump pump removed at 117 Bellevue Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 59 Bonney St.	8,640 gpd **				
	April 1995	Sump pump removed at 25 Granite St.	8,640 gpd **				
	April 1995	Sump pump removed at 114 Hovendon Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 121 Hovendon Ave.	8,640 gpd **				
	April 1995	Sump pump removed at 243 Howard St.	8,640 gpd **				
	April 1995	Sump pump removed at 267 Howard St.	8,640 gpd **				
	April 1995	Sump pump removed at 15 Intervale St.	8,640 gpd **				
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd *				
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd *				
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd *				
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd *				
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd *				
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd *				
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation					
		- Disconnected driveway drain from sewer at 28 Amark St.	4,320 gpd ***				
		- Disconnected driveway drain from sewer at 306 Field St.	4,320 gpd ***				
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd *				
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd *				
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd *				

* I/I estimate based on average I/I rate of 6.7 gpd/ft.

** I/I estimate based on pump rate of 6 gpm.

*** I/I estimate based on pump rate of 3 gpm.

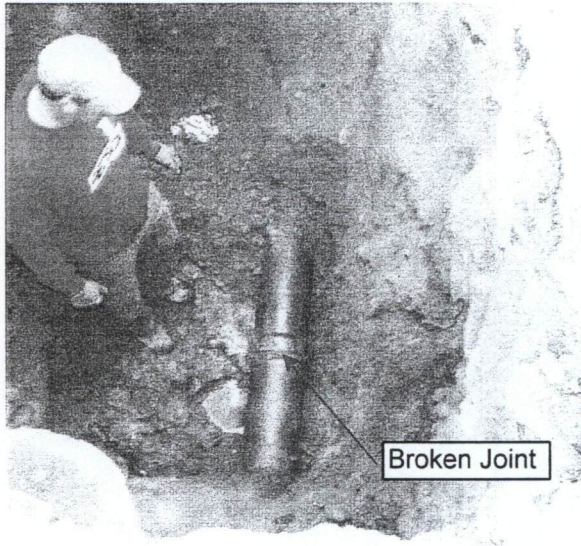
SPL: signs of previous leakage

Estimated Total I/I Removed: 7,859,175 gpd

**Photographs of Rehabilitation Conducted by
Brockton Sewer Department**

Before

Photo 156A - Vine Street



After

Photo 156B - Vine Street



Photo 157A - 47 North Manchester Street

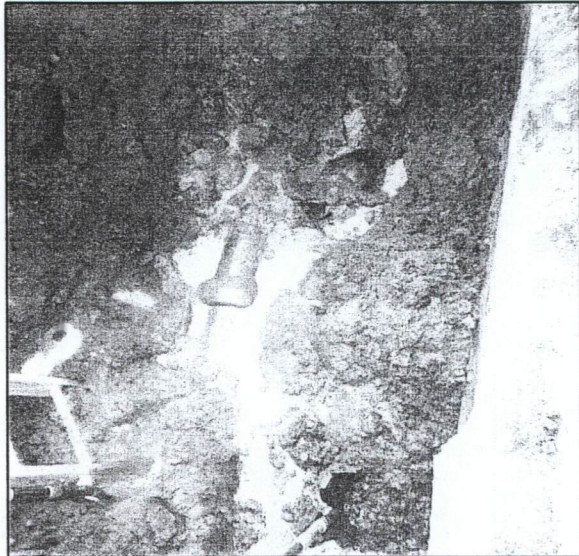
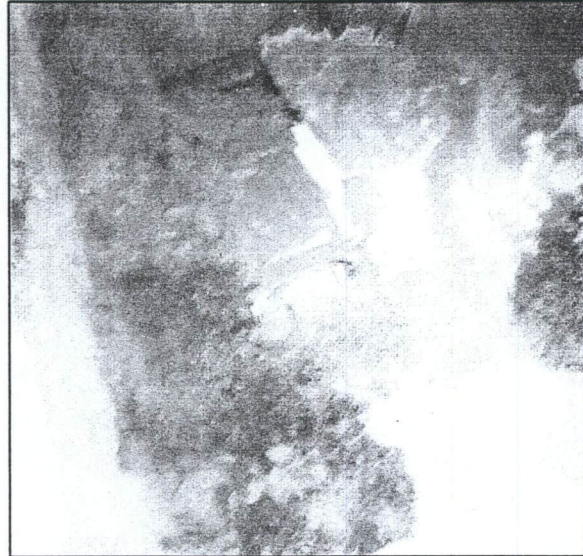


Photo 157B - 47 North Manchester Street



**Photographs of Rehabilitation Conducted by
Brockton Sewer Department**

Before

After

Photo 158A - 35-37 North Manchester Street



Photo 159A - 41 North Manchester Street



Photo 159B - 41 North Manchester Street



**Photographs of Rehabilitation Conducted by
Brockton Sewer Department**

Before

After

Photo 160A - 30 Calvin Street

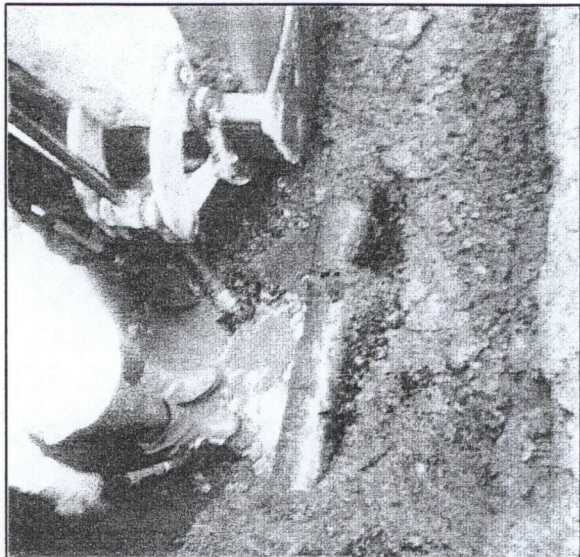


Photo 160B - 30 Calvin Street

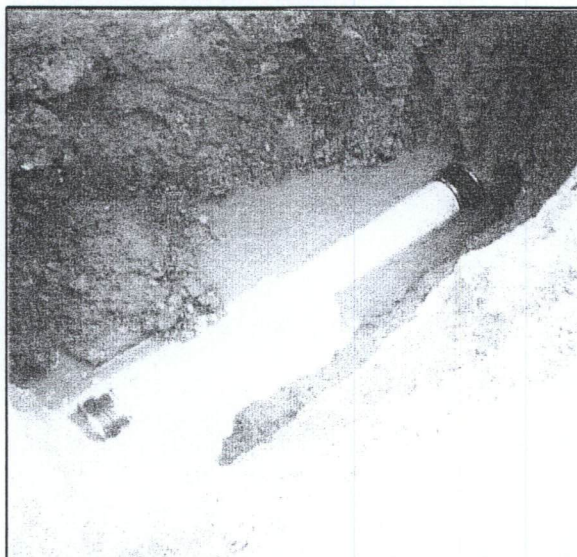


Photo 161A - 35 Calvin Street



Photo 161B - 35 Calvin Street



**Photographs of Rehabilitation Conducted by
Brockton Sewer Department**

Before

Photo 162A - 25 Rutland Street



After

Photo 162B - 25 Rutland Street



Payments Transaction Details

Page 1 of 2



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Payments	Receipts	Treasury	Trade	Images	Notifications
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Payment Transaction Details

City Of Brockton
Martin Brophy
10/17/2006 7:36 CDT

Payment 1 of 2 Total Payments

PI Reference: 11976934
Debit Account: 000200119076
Account Name: Treasures Checking
Payment Amount: USD 60,000.00
Value Date: 10/17/2006
Your Reference: CONSENT DECREE

Payment Status: Payment Completed

Payment Type: USD Wire

Initiated: 10/16/2006 13:45 by MB106267
CDTLast Modified: 10/16/2006 13:45 by MB106267
CDT

Last Rejected:

Last Approved: 10/16/2006 13:45 by NOT REQUIRED
CDTReleased: 10/16/2006 13:45 by MB106267
CDT

Trace Reference: 11976934

Service Conf: 2006101700030539

Template Used:

Ordering Party Info

ID Type:

ID:

Name:

Address:

RECEIVING
BANK

Provided By:

ID Type:

ID:

Name:

Address:

City:

State:

Country:

BENEFICIARY BANK INFORMATION

ID Type: ABA

ID:

Name: BANK OF AMERICA, NEW YORK

Address: 100 N TRYON ST

City: CHARLOTTE

State: NC

Country: US

Bank-To-
Bank Info:Details of MASSACHUSETTS OFFICE OF THE ATTORNEY GENERAL CASE #
14/596, CONSENT DECREE

Payment:

Charges: None Selected

INTERMEDIARY
BANK

Provided By: User

ID Type:

ID:

Name:

Address:

City:

State:

Country:

BENEFICIARY INFORMATION

ID Type: ACCT

ID:

Name: COMM OF MA/OFFICE OF ATTY
GENERAL

Address:


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Bank of America Direct

[Home](#) [Admin](#) [Tools](#) [Log](#) [Help](#) [Sign On](#)

Payments	Receipts	Treasury	Trade	Images	Notifications
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Payment Transaction Details

 City Of Brockton
 Martin Brophy
 10/17/2006 7:37 CDT

Payment 2 of 2 Total Payments

PI Reference: 11976377
Debit Account: 000200119076
Account Name: Treasures Checking
Payment Amount: USD 60,000.00
Value Date: 10/17/2006
Your Reference: CONSENT DECREE

Payment Status: Payment Completed**Payment Type:** USD Wire
Initiated: 10/16/2006 13:34 CDT by MB106267

Last Modified: 10/16/2006 13:34 CDT by MB106267
Last Rejected:
Last Approved: 10/16/2006 13:34 CDT by NOT REQUIRED

Released: 10/16/2006 13:34 CDT by MB106267
Trace Reference: 11976377**Service Conf:** 20061017B6B7HU1R000305**Template Used:**

Ordering Party Info

ID Type:**ID:****Name:****Address:**

RECEIVING BANK

Provided By:**ID Type:****ID:****Name:****Address:****City:****State:****Country:**

INTERMEDIARY BANK

Provided By: User**ID Type:****ID:****Name:****Address:****City:****State:****Country:**

BENEFICIARY BANK INFORMATION

ID Type: ABA**ID:** 021030004**Name:** DEPARTMENT OF THE TREASURY**Address:** 33 LIBERTY ST**City:** NEW YORK CITY**State:** NY**Country:** US

BENEFICIARY INFORMATION

ID Type: ACCT**ID:** 15030001**Name:** US DEPT OF JUSTICE**Address:**
Bank-To-Bank Info:

Details ofUSAO/MA BROCKTON, CITY OF MA. CLAIM# 2006Z00487, EFT#
 MA/07/E01, USAO FILE# 2003V00650, REG 1, DOJ CASE# 90-5-1-1-
Payment:08161

Charges: None Selected

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Secure Area
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CITY OF BROCKTON

DEPARTMENT OF PUBLIC WORKS

MICHAEL L. THORESON, COMMISSIONER

508-580-7135

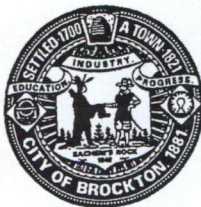
ENGINEERING
HIGHWAY
MAINTENANCE
REFUSE
SEWER
WATER

FAX NUMBER - 508-580-7169

FAX TRANSMISSION COVER SHEETDATE: 10/18/06TO: Greg RyzFROM: ElviraSUBJECT: Wai Wai Wai for DEP/EPAConsent decreeNUMBER OF PAGES INCLUDING COVER SHEET 3☐ URGENT REPLY REQUESTED☐ REPLY TODAY☐ REPLY AT YOUR CONVENIENCE☐ NO REPLY NECESSARY

Note: If you do not receive the correct number of pages, please contact the above number. Thank you.

This fax transmittal contains proprietary information, and we request that such information not be disposed to others, except as consented to by the Department of Public Works. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this telecopied information is strictly prohibited. If you have received this telecopy in error, please immediately notify us by telephone to arrange for disposition of the original documents.



"City of Champions"

DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER

Michael L. Thoreson
COMMISSIONER

December 22, 2006


Mr. James M. Ramos, P.E.
Hart Engineering Corporation
800 Scenic View Drive
Cumberland, Rhode Island 02864

Subject: Brockton, Massachusetts
Phase I Wastewater Treatment Facility Upgrade
DPW 04-112, CWSRF # 1722
Substantial Project Completion

Dear Mr. Ramos:

This is to confirm that the work has been sufficiently completed to allow for its use and operation as intended and is considered substantially complete. The date of December 11, 2006 establishes the date of substantial project completion that includes the requested sixty (60) calendar-day time extension to the original contract completion date of October 12, 2006. The original contract time will be formally amended by a pending change order to the contract.

Very truly yours,



Michael L. Thoreson
Commissioner of Public Works

C: David A. Norton, Water & Sewer Contract Administrator
Greg Roy, CDM
Antonio V. Bonilla, CDM



HART

ENGINEERING CORPORATION

60 Years of Excellence

Camp Dresser & McKee, Inc.
56 Exchange Terrace
Fourth Floor
Providence RI 02903

December 11, 2006

Attn: Antonio V. Bonilla
Re: Brockton WWTF Improvements Phase I
Contract No. DPW-04-112
Request For Substantial Completion

Gentlemen;

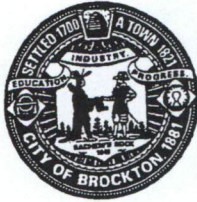
In accordance with the Specification Section 00700 -- Paragraph 14.04, I am formally notifying you that the work related to this project is substantially complete aside from the equipment related to the South RAS Pump Station and the Primary Effluent Lift Station, which has been delayed to accommodate Phase 2. Please issue a certificate of Substantial Completion accordingly.

If you have any questions, please contact me at 401-658-4600 ext. 127.

Very truly yours,

James M. Ramos, P.E.
Project Manager

CC: R. Mulligan - Hart, D. Norton - Brockton



"City of Champions"

DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER

Michael L. Thoreson
COMMISSIONER

CERTIFIED MAIL
7001 2510 0003 6228 0083

October 26, 2006

I. Andrew Goldberg, Assistant Attorney General
Massachusetts Office of the Attorney General
One Ashburton Place – 18th Floor
Boston, MA 02108

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Preliminary I/I Removal Plan

Dear Assistant Attorney General Goldberg:

The City of Brockton submits the following Preliminary I/I Removal Plan as required by the Consent Decree (CD) identified above. Section 35 of the CD requires that a Preliminary I/I Removal Plan be submitted within 30 days of the effective date September 28, 2006 of the CD. This correspondence is intended to fulfill the requirement of Section 35 in the Consent Decree.

The required contents of the I/I Removal Plan are detailed Section 37 and the following provides a response to each subsection (a-c). This document is intended to be the Preliminary I/I Removal Plan.

Section 37 (a) – Provide a funding plan for the 6-1/2 years of I/I removal.

State funding for all sewer system rehabilitation has been established and efforts are on-going to secure local bonding authorization. The City has been listed on the CY 2006 Project Priority List for SRF funding of the required projects. Project funding of \$20,000,000 has been provided under CWSRF ID No. 2914 which includes sewer system rehabilitation and additional improvements to the wastewater treatment facility. A copy

of the CY 2006 Project Priority List has been enclosed. Phase 6 through 9, Sewer System Rehabilitation projects are intended to be completed within 6-1/2 years and will complete the majority of the recommendations of the City Wide Sewer System Evaluation Study (SSES), dated August 2000.

The City is pursuing local bonding authorization and sewer rate increase to cover the funding requirements of the CD. The City has already provided authorization to bond \$25,000,000 of the required funds. The City Council bonding authorization, dated May 25, 2006, has been enclosed. This authorization was provided to supplement additional funding for the WWTF upgrade and to begin funding for sewer rehabilitation required of the Consent Decree. Local bonding authorization to cover the balance of the work will be provided as required.

Section 37 (b) – Description of sewer system rehabilitation work packages.

Since the completion of the SSES, the City has been aggressively pursuing rehabilitation of the sewer system. The Phase 1 through Phase 5 construction projects have been completed or are in progress of being completed. Four additional phases of sewer system rehabilitation contracts are intended to satisfy the majority of CD requirements. Phase 4 and Phases 6 through 9 are scheduled for completion over next 4-1/2 years. Schedule A provides a breakdown of how these projects are expected to proceed. The design of the Phase 6 project is underway and the intent is for the project to bid in early 2007. Phase 4 Sewer System Rehabilitation is shown because it's an ongoing project with SSES related improvements.

All of the rehabilitation projects have followed the recommendations of the SSES report and have also included other areas of concern as identified by the City. The work conducted to date and the projected projects will focus on the recommended improvements outline in the following SSES tables:

- Table 8-1 Prioritized Listing of Cost - Effective Lateral Sewer Groups
- Table 8-2, Lateral Sewer Pipe Recommended for Value Effective Rehabilitation
- Table 8-3, Interceptor Pipe Recommended for Value Effective Rehabilitation
- Table 8-5, Interceptor Pipe Recommended for Heavy Cleaning
- Table 5-1, Exfiltration Study Summary and Recommendations, and
- Table 6-3, Cost - Effectiveness Analysis for Manhole Rehabilitation.

While it's important to follow the recommendations of the SSES, there exist other areas of concern which have been discovered since the completion of the SSES. Some of these system defects require immediate attention and will likely consume some of the financial resources set aside for the CD. As mentioned in a correspondence to Assistant Attorney General Andrew Goldberg, the City requests that credit be provided for non SSES related improvements performed in the past and those required in the future. This letter dated September 20, 2006 has been enclosed. The City acknowledges that performance of non SSES related rehabilitation will not allow for all SSES improvements to be completed.

Section 37 (c) – House-to-House (HTH) Inspection Program

Section 37 (c) describes where and how the HTH is to be conducted. This I/I Removal Plan provides the scope of work for the HTH Inspection Program. The City has been proactive and began this project in July 2006. The executed contract between the City of Brockton and Camp Dresser & McKee has been enclosed. The following paragraphs are responses to the CD requirements of this program.

Section 37 (c) (i) – Methods for entering buildings with refusals

As described in Section 1.2.2 of the CDM contract, suggested methods will be provided for entering homes where access is denied. Even though, legal hurdles make it difficult to enter all buildings. Every attempt will be made to use all existing resources and local laws to gain access. There currently is no technology for identifying a private inflow source by accessing from the sewer main. Methods used to increase the success of entering buildings will be provided in the HTH summary report.

Section 37 (c) (ii) – Methods for performing follow-up inspections

As described in Section 1.2.3 of the CDM contract, a protocol will be developed for the re-inspection of buildings where inflow sources have been removed. Procedures developed for follow-up inspections will be provided in the HTH summary report.

Section 37 (c) (iii) – Schedule to investigate suspect private inflow sources

The results of the HTH, conducted as part of the 2000 SSES, included a list of 246 potential (suspect) sources of inflow from private properties throughout the city. These findings are summarized on page 4-4 of the SSES report. A schedule (Schedule B) for conducting further investigations to locate inflow sources has been enclosed. This work has been delayed until after the 2006 HTH Investigations so that all suspect sources can

be investigated under one program. A scope of work will be submitted prior to proceeding with these investigations.

Section 37 (c) (iv) – Identify new enforcement procedures

As described in Section 1.2.4 of the CDM contract, new enforcement procedures will be developed and incorporated into the existing Sewer Use Ordinance. The recommended changes will be provided in the HTH summary report.

Section 37 (c) (v) – Identify the schedule to complete the HTH program

Schedule B describes when the HTH will be completed.

Section 37 (c) (vi) – Provide budget and funding sources

The City has \$475,000 in their FY06 operating budget to perform the HTH program. A copy of the City's operating budget has been enclosed and this funding has been highlighted. This budget corresponds with the contract value and CDM for services to conduct the HTH program.

Section 37 (c) (vii) – Identify the location of all inflow sources

As mentioned in the CDM scope of work, all inflow sources identified as part of the HTH will be tabulated in the text of the summary report and shown graphically.

Section 37 (c) (viii) – Identify who will be performing the HTH program

The City has contracted with Camp Dresser & McKee to complete the HTH program.

Section 37 (c) (ix) – Identify any legal issues in implementing the HTH program

The nature of this work will result in legal issues and most will focus on building entry procedures and enforcement. The HTH summary report will outline these procedures and detail all existing and anticipated legal issues.

Section 37 (c) (x) – Provide implementation plan and schedule

The CDM scope of work (enclosed) and Schedule B, outline the implementation plan and schedule.

Section 38 – Provide proof of funding

Within 90 days of approval of the Final I/I Removal Plan, the City shall secure funds to complete the plan and will submit proof of funding. The I/I Removal Plan includes two sources of funding, one for private inflow source removal and the other for sewer system rehabilitation.

Section 38 (a) – Provide proof of funding for the sewer system rehabilitation program (Public I/I)

State funding for all sewer system rehabilitation has been established and efforts are ongoing to secure local bonding authorization. The City has been listed on the CY 2006 Project Priority List for SRF funding of the required projects. Project funding of \$20,000,000 has been provided under CWSRF ID No. 2914 which includes sewer system rehabilitation and additional improvements to the wastewater treatment facility. A copy of the CY 2006 Project Priority List has been enclosed. Phase 4 and Phase 6 through 9, Sewer System Rehabilitation projects are intended to be completed within 6-1/2 years and will complete the majority of the recommendations of the Sewer System Evaluation Study.

The City is pursuing local bonding authorization and sewer rate increase to cover the funding requirements of the CD. The City has already provided authorization to bond \$25,000,000 of the required funds. The City Council bonding authorization, dated May 25, 2006, has been enclosed. This authorization was provided to supplement additional funding for the WWTF upgrade and to begin the funding for sewer rehabilitation required of the Consent Decree. Local bonding authorization to cover the balance of the work will be provided as required.

Section 38 (b) – Provide proof of funding for the HTH Inspection Program

As part of the FY06 budget, the City included \$475,000 in their operating expenses to conduct the House-to-House Inspection Program as required by Section 37 (c) of the Consent Decree. The project is fully funded and a copy of the City's operating budget has been enclosed.

Section 73 – Certification by representative of the City

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry

I. Andrew Goldberg, Assistant Attorney General
October 26, 2006
Page 6

of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Closing

This is the Preliminary I/I Removal Plan and comments made by others will be addressed in a Final I/I Removal Plan. Please do not hesitate to contact me at 508-580-7135 if you would like to discuss this plan.

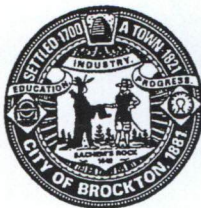
Sincerely,



Michael L. Thoreson
DPW Commissioner

MLT/ec
Enclosures

xc: Chief, Environmental Enforcement Section, Washington, D.C.
Tonia Bandrowicz, Sr. Enforcement Counsel, USEPA
Steven Couto, Environmental Engineer, USEPA
Anne Bingham, MADEP
Barbara Healy Smith, Assistant U.S. Attorney
James D'Ambrose, City Solicitor
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
✓ Greg Roy, CDM



"City of Champions"

**DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER**

CERTIFIED MAIL
7001 2510 0003 6228 0465

Michael L. Thoreson
COMMISSIONER

December 28, 2006

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
United States Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D. C. 20044

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Pilot Program for Collection of Drinking Water Samples at the City of Brockton Schools and
Child Care (daycare and nursery) facilities in City Buildings for Analysis of Lead

Dear Chief:

The City of Brockton submits the following work plan for completion of sampling of drinking water in the schools and childcare facilities as required by the Consent Decree (CD) identified above. Appendix C of the CD requires that the work plan be submitted within 90 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix C in the Consent Decree.

The required contents of the Pilot Program for Collection of Drinking Water Samples at the City of Brockton Schools and Child Care (daycare and nursery) facilities in City Buildings for Analysis of Lead are detailed in Appendix C of the Consent Decree. This document is intended to present the work plan as required. Please do not hesitate to contact me at 508-580-7135 if you have questions regarding this agreement.

Sincerely,

Michael L. Thoreson
DPW Commissioner

MLT/eac

Attachments

cc: Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM

CITY HALL, 45 SCHOOL STREET, BROCKTON, MASSACHUSETTS 02301
TEL: (508) 580-7135 FAX: (508) 580-7169 Email: mthoreson@ci.brockton.ma.us

Drinking Water Lead in School and Day Care Work Plan

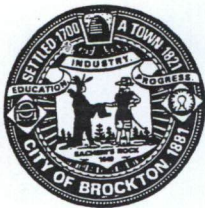
The attached survey identifies the facilities to be tested and the number of expected first draw and flush samples to be taken. Priority 1 samples include daycare and Brockton Elementary Schools not previously tested built before 1990 and schools tested having a result above .015 mg/L. Priority 2 are all other elementary schools previously tested with results under the DEP/EPA Action level. Priority 3 are all middle schools and priority 4 are all High Schools. Testing will begin when the work plan is approved as stated in C below on Wednesdays, Thursdays and Fridays to insure water use and training of samplers is completed for each sample. Training and distribution will occur on Tuesdays. No testing will be done after a day when the facility is closed.

- A. The Program will be carried out by Brian M. Creedon, certified Grade 4D # 8322, who is also a State Certified Chemist, with assistance of Richard Smith, head of plumbing for the Brockton School System. Sampling to be done by facility staff under direction of the above individuals.
- B. A survey has been done for all facilities for food preparation and availability of bubblers with and without chillers. Many of the schools have been tested in 2004, however, the daycare facilities have not been done. The attached survey identifies the survey done in 2006.
- C. Sampling of facilities that have not been previously sampled will not be Flush tested all others will use flush testing. Sampling will be done on either Wednesday, or Thursday or Friday depending on the weather.
- D. Samples will be tested for Lead and Copper at Analytical Balance of Middleboro a State Certified testing facility using DEP approved forms.
- E. Results will be compiled by the Water System Manager and reported in the same fashion as always used, by a letter from the Water Commission, to each facility tested.

	Num	Loc_Street	Year Constructed	Account	1st draw	flush sample	Tested prior	Priority
HIGH SCHOOLS								
BROCKTON HIGH SCHOOL - RED BLDG	470	FOREST AV	1970	28568	8	1	Y	4
BROCKTON HIGH SCHOOL - BLUE BLDG	470	FOREST AV	1970	28568	6	1	Y	4
BROCKTON HIGH SCHOOL - GREEN BLDG	470	FOREST AV	1970	28568	8	1	Y	4
BROCKTON HIGH SCHOOL - YELLOW BLDG	470	FOREST AV	1970	28568	8	1	Y	4
BROCKTON HIGH SCHOOL - MAIN OFFICE	470	FOREST AV	1970	28568	1	1	Y	4
BROCKTON HIGH SCHOOL - FINE ARTS BLDG	470	FOREST AV	1970	28568	6	1	Y	4
BROCKTON HIGH SCHOOL - GYM	470	FOREST AV	1970	28568	8	1	Y	4
BROCKTON HIGH SCHOOL - CORE BLDG	470	FOREST AV	1970	28568	12	1	Y	4
BROCKTON HIGH SCHOOL - MAIN KITCHEN	470	FOREST AV	1975	28568	4	1	Y	4
BROCKTON HIGH SCHOOL - SERVICE AREA	470	FOREST AV	1970	28568	0	0	Y	4
LINCOLN/ITHAKA	70	HIGHLAND ST	1895	21585	6	6	Y	3
CHAMPION CHARTER	39	ERIE AV	1959	16343	6	6	N	3
BB RUSSELL SCHOOL	45	OAKDALE ST	1925	33426	7	1	Y	3
EAST JR HIGH SCHOOL	464	CENTRE ST	1958	14823	9	1	Y	3
NORTH JR HIGH	108	OAK ST	1959	35631	16	1	Y	3
SOUTH JUNIOR HIGH SCHOOL	105	KEITH AV EXT	1955	26406	22	1	Y	3
WEST JUNIOR HIGH SCHOOL	271	WEST ST	1952	26121	10	1	Y	3
GILMORE ACADEMY	140	CLINTON ST	1965	16703	29	1	Y	3
ELEMENTRY								
ANGELO SCHOOL	472	N MAIN ST	1999	35159	61	1	N	1
ARNONE SCHOOL	135	BELMONT ST	2001	20283	61	1	N	1
ASHFIELD SCHOOL	208	COE RD	1965	37524	32	1	Y	2
BELMONT SCHOOL	440	BELMONT ST	1996	29832	6	6	N	1
BROOKFIELD SCHOOL	135	JON DR	1963	37042	44	1	Y	2
DAVIS SCHOOL	380	PLAIN ST	1974	17866	12	1	N	1
J P DOWNEY SCHOOL	55	ELECTRIC AV	1971	17218	21	1	Y	2
FRANKLIN SCHOOL	59	SAWTELL AV	1898	38983	12	1	Y	2
GODDARD SCHOOL	20	UNION ST	1881	12810	5	1	N	1
HANCOCK SCHOOL	123	PEARL ST	1963	27774	12	1	Y	2
HOWARD	837	N MAIN ST	1890	31623	4	1	Y	2
HUNTINGTON SCHOOL	1121	WARREN AV	1889	18449	7	1	N	1
KEITH SCHOOL	0	W ELM ST	1916	24033	13	1	Y	2
J F KENNEDY SCHOOL	900	ASH ST	1965	28082	7	1	Y	2

Consent Decree SEP survey

PLOUFFE SCHOOL	CRESCENT ST	1998	19117	61	1	N	1
RAYMOND SCHOOL	125 OAK ST	1974	38946	12	1	Y	2
WHITMAN SCHOOL	0 GIFFORD ST	1895	21225	1	1	Y	2
HEAD START							
SHAW SCHOOL	311 QUINCY ST	1900	12241	2	2	N	1
DAY CARE							
OLD COLONY Y MAIN BRANCH	320 MAIN ST	?	16226	0	0	N	1
OLD COLONY Y MAIN YOUTH DIVISION	465 MAIN ST	?	18227	2	2	N	1
OLD COLONY Y MAIN WEST CHESTNUT BRANCH	850 WEST CHESTNUT ST	?	29260	2	2	N	1
OLD COLONY Y PLEASANT ST	1350 PLEASANT ST	?	29810	3	3	N	1
BOYS AND GIRLS CLUB	233 WARREN AV	1900	13228	4	4	N	1



"City of Champions"

**DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER**

CERTIFIED MAIL

7002 2410 0001 8494 0974

Michael L. Thoreson
COMMISSIONER

November 27, 2006

I. Andrew Goldberg, Assistant Attorney General
Massachusetts Office of the Attorney General
One Ashburton Place
18th Floor
Boston, MA 02108

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Assistant Attorney General Goldberg:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

The required contents of the Regional Wastewater Management Planning agreement are detailed in Appendix B of the Consent Decree. This document is intended to be the Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council. Comments made by others will be addressed in the final agreement between the City of Brockton and the Old Colony Planning Council for the Regional Wastewater Management Planning study. Please do not hesitate to contact me at 508-580-7135 if you have questions regarding this agreement.

Sincerely,

Michael L. Thoreson
DPW Commissioner

I. Andrew Goldberg, Assistant Attorney General
November 27, 2006
Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM



"City of Champions"

**DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER**

CERTIFIED MAIL

7002 2410 0001 8494 0967

Michael L. Thoreson
COMMISSIONER

November 27, 2006

Anne Bingham
Massachusetts Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Ms. Bingham:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

The required contents of the Regional Wastewater Management Planning agreement are detailed in Appendix B of the Consent Decree. This document is intended to be the Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council. Comments made by others will be addressed in the final agreement between the City of Brockton and the Old Colony Planning Council for the Regional Wastewater Management Planning study. Please do not hesitate to contact me at 508-580-7135 if you have questions regarding this agreement.

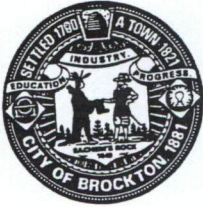
Sincerely,

Michael L. Thoreson
DPW Commissioner

Anne Bingham
Massachusetts Department of Environmental Protection
November 27, 2006
Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM



"City of Champions"

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

CERTIFIED MAIL

7002 2410 0001 8494 0950

Michael L. Thoreson
COMMISSIONER

November 27, 2006

Steven Couto
Environmental Engineer
U.S. EPA
Mail Code: SEW
One Congress Street
Boston, MA 02114-2023

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Mr. Couto:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

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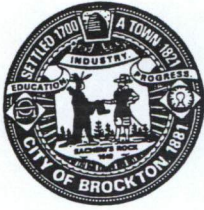
Sincerely,

Michael L. Thoreson
DPW Commissioner

Steven Couto, Environmental Engineer
November 27, 2006
Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM



"City of Champions"

**DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER**

CERTIFIED MAIL

7002 2410 0001 8494 0943

Michael L. Thoreson
COMMISSIONER

November 27, 2006

Tonia Bandrowicz
Sr. Enforcement Counsel
U.S. EPA
Mail Code: SEL
One Congress Street
Boston, MA 02114-2023

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Ms. Bandrowicz:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

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Sincerely,

Michael L. Thoreson
DPW Commissioner

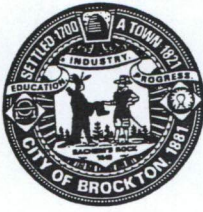
Tonia Bandrowicz, Sr. Enforcement Counsel

November 27, 2006

Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM



"City of Champions"

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

CERTIFIED MAIL

7002 2410 0001 8494 0936

Michael L. Thoreson
COMMISSIONER

November 27, 2006

Barbara Healy Smith
Assistant U.S. Attorney
John Joseph Moakley U.S. Courthouse
1 Courthouse Way, Suite 9200
Boston, MA 02210

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Assistant U.S. Attorney Smith:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

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Sincerely,

Michael L. Thoreson
DPW Commissioner

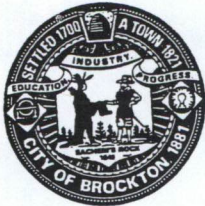
Barbara Healy Smith, Assistant U.S. Attorney

November 27, 2006

Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM



"City of Champions"

**DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE COMMISSIONER**

CERTIFIED MAIL

7002 2410 0001 8494 0929

Michael L. Thoreson
COMMISSIONER

November 27, 2006

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
United States Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044

Subject: Brockton, Massachusetts
Consent Decree Civil Action Case No. 1:06-cv-11334-NMG
Draft Agreement for Regional Wastewater Management Planning

Dear Chief, Environmental Enforcement Section:

The City of Brockton submits the following Draft Regional Wastewater Management Plan as required by the Consent Decree (CD) identified above. Appendix B of the CD requires that a Draft Agreement for Regional Wastewater Management Planning between the City of Brockton and the Old Colony Planning Council be submitted within 60 days of the effective date (September 28, 2006) of the CD. This correspondence is intended to fulfill the requirement of Appendix B in the Consent Decree.

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Sincerely,

Michael L. Thoreson
DPW Commissioner

Chief, Environmental Enforcement Section
November 27, 2006
Page 2

MLT/ss

cc: Pasquale Ciaramella, OCPC
Larry Rowley, Utilities Superintendent
David Norton, Water & Sewer Contract Administrator
Patrick D. Hughes, CDM
Greg Roy, CDM

DRAFT
OLD COLONY PLANNING COUNCIL
70 School Street, Brockton, Tel. 508 583-1833/Fax: (508) 559-8768
Website: www.ocpcrpa.org

This Cooperative Agreement made as of this day, November __, 2006 by and between the Old Colony Planning Council (hereinafter called OCPC) and the City of Brockton Department of Public Works (hereinafter called DPW);

WITNESS TO:

WHEREAS The DPW has engaged OCPC to undertake the tasks on preparing the Brockton Regional Area Wastewater Study:

NOW, THEREFORE, the parties hereto do mutually covenant and agree as follows:

1. **PARTICIPATION OF OCPC:** In accordance with its powers and duties enumerated under the Massachusetts General Laws, OCPC agrees to provide assistance to the DPW to undertake specific tasks spelled out below.
2. **SCOPE OF SERVICES:** The services to be performed by OCPC under this Cooperative Agreement are described in the attached Scope of Services (which is hereby made a part of this Agreement). OCPC shall do, perform, and carry out its part of the Agreement in such a manner as the DPW may reasonably determine to be satisfactory.
3. **TIME OF PERFORMANCE:** The services to be performed under the Cooperative Agreement shall commence on January 2, 2007 and all services required hereunder shall be performed on or before December 31, 2007.
4. **PAYMENT:** The cost of the services to be performed by OCPC shall not exceed \$75,000. OCPC shall be limited to no more than 15% (\$11,250) for administration. OCPC will submit invoices quarterly to the DPW showing the hours and rates of persons charging to the contract and any direct costs.
5. OCPC will provide one copy of each technical report generated as part of the evaluation to EPA, MADEP, the City, and the Taunton River Comprehensive Watershed Management Plan project team comprised of OCPC, Southeastern Regional Planning & Economic Development District, and Bridgewater State College.
6. **TERMINATION:** This Agreement may be terminated by either party upon 15 days notice in writing. If the termination is initiated by the DPW all out-of-pocket expenses incurred by OCPC prior to termination shall be reimbursed by the DPW and the DPW shall receive a copy of all draft and final reports, studies, drafts, and maps prepared in connection with this project.

Representing OCPC:

Signature

Title

Date

Representing the DPW:

Signature

Title

Date

DRAFT
Old Colony Planning Council

Upper Taunton Basin Scope of Services for \$75,000 Brockton /DEP funds.

Attachment to Agreement with City for review by City and listed towns

Brockton Area Regional Wastewater Study

The following outlines steps required to review problem areas and to identify and evaluate waste-water management options in the Central Upper Basin Communities of Abington, Avon, Brockton, Easton, West Bridgewater, East Bridgewater, and Whitman. While these are only a portion of the upper basin and some present/proposed solutions involve other communities (e.g., Rockland serving part of Abington, and Raynham and Mansfield proposed to serve parts of Easton), they are an appropriate compact unit for mid-term planning in relation to optimum use of the Brockton Regional Wastewater Treatment Plant.

Note: OCPC will spend up to 15% of the funds (\$11,250) on administration while the remaining \$63,750 will be used for engineering services. The work program is intended to be integrated with the ongoing water quality/habitat-focused comprehensive Taunton River Watershed Study which has grown out of this effort and which is funded by \$500,000 from the Legislature.

The following work program indicates key items to be done with the limited DEP/Brockton funds and Further Tasks needing support from the funds appropriated by the General Court for the greater Taunton River Watershed Study which grew out of the present effort, and from prospective DEP SFR funds for related Upper Taunton Basin studies.

I. Organization

1. Establishment of a working group of interested communities to provide technical guidance to the study. This will be based on the ongoing Old Colony Regional Waste Water Planning Committee, which has been operating for nearly three years, with increased community representation.

II. Background Data Gathering

1. Search CWWMP plans and other sources for:

- a. Areas of present documented need for wastewater disposal
- b. Present and projected flows given present conditions and current development trends

- c. The capacity of existing and planned treatment plants allowing for long-term infiltration/inflow effects.
- d. Identified potential discharge sites, regardless of ownership and applicable regulations, in Easton, West Bridgewater, East Bridgewater, Avon, Abington and Whitman.

Programmed --- \$21, 250

III. Analysis

1. Evaluate ownership and regulatory constraints on the potential discharge areas and identify opportunities for negotiation/regulatory change.
2. Examine the considerations involved in pumping treated effluent to any discharge areas in the varied points of origin.
3. Identify the implications of present inter-community and inter-basin transfers of water via water supply and sewage systems for the use of the proposed discharge points, noting any changed opportunities to replace exported water.

Programmed --- \$21,000

IV. Planning

1. Evaluate previously-identified potential out-of-town disposal areas in terms of needed easements, safeguards, environmental issues, and owners' concerns.
2. Conceptualize the alternatives and identify locations; probable infrastructure and land requirements, and general water budget/water quality implications for future feasibility analyses.

Programmed --- \$15,500

V. Recommendations

1. Rank conceptual alternatives
2. Identify further alternatives, treatment systems / sites for possible later study.

Programmed --- \$6,000

Total \$63,750

V. Issues for Further Analysis/Planning

These are tasks beyond the present Brockton/DEP budget which are needed to fully explore and evaluate the options discussed above and other candidate solutions.

1. Examine the relationship of any potential treatment plants to scattered potential discharge areas including some surface water or ground discharge points upstream of water supplies.
2. Identify further alternative discharge areas beyond the sites noted above; e.g., on the lower Taunton River, on man-made or enhanced wetlands, on part of the Hockomock Swamp or contributing streams, or in underground galleries.
3. Estimate the costs of permitting, land, equipment, pipelines, and site work for the outlying disposal areas.
4. Determine the loading capacity or nutrient uptake capacity of such major streams, water bodies, and wetlands where available to increase water quality and to smooth out stream flows.
5. Identify areas where sewerage would support smart growth objectives/ opportunities by reviewing master plans and build out analyses, and estimating the impacts /costs of accommodating such increased flows.
6. Identify impacts on community and basin water budgets of prospective inter-community / inter basin transfers resulting from sewerage.
7. Note storm water recharge opportunities to compensate for water lost through downstream effluent discharges.

Estimated Cost - \$100,000.